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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,262	10/20/2003	Min-Chieh Chou	64,600-126	2887

7590 08/11/2004

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EXAMINER
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
NGUYEN, JIMMY

ART UNIT	PAPER NUMBER
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2829

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/689,262	Applicant(s)  CHOU ET AL.	
	Examiner Jimmy Nguyen	Art Unit 2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

- Page 13 lines 2 and 3, probe pin "36" instead of "83"

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 – 4, 7 – 10, 12 – 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Mathieu et al (US 6616966).

**As to claims 1, 13**, Mathieu et al disclose (figs 23 – 26) a probe module comprising:

a probe base (730A, 730B);

a plurality of probe pins (760A, 760B) each having a generally tetrahedral probe tip carried by said probe base (730A, 730B); and

a circuit interconnect device (486, fig 23) for connecting said plurality of probe pins (760A, 760B) to an inspection apparatus.

**As to claims 2, 4, 8, 10, 14, 16, 18,** Mathieu et al disclose (figs 23 – 26) the probe module of claim 1 wherein each of said plurality probe pins (760A, 760B) comprises a probe pin body (740A, 740B), a probe pin head (760A, 760B) carried said probe pin body (740A, 740B) and generally tapered probe pin tip (760A, 760B) provided on said probe pin head.

**As to claims 3, 9, 12, 15,** Mathieu et al disclose (figs 23 – 26) the probe module of claim 1 wherein said circuit interconnect device (480, fig 23) comprises a plurality of conductive probe circuits (486) provided on said probe base (730A, 730B) in electrical contact with said plurality of probe pins (760A, 760B), respectively, and a flexible circuit board (480) provided in electrical contact with said plurality of conductive probe circuits (486).

**As to claims 7, 17,** Mathieu et al disclose (figs 23 – 26) a compression arm (the upper portion of the board 480) carried by probe base and engaging plurality of probe pins ( 471).

**As to claim 19,** Mathieu et al disclose (figs 23 – 26) the probe pin tip (760A, 760B) has a generally polyhedral configuration.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5, 6, 11, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathieu et al (US 6616966) in view of Di Stefano (US 6771084).

**As to claims 5, 11, 20,** Mathieu et al disclose everything except for the probe module wherein each of plurality of said a probe pin body, a probe pin head carried by said probe pin body and a generally semi-spherical probe pin provided on said probe pin head.

On the other hand, Di Stefano teach the probe module (fig 13C) wherein each plurality of said a probe pin body (282), a probe pin head (281) carried by said probe pin body (282) and a generally semi-spherical probe pin provided on said probe pin head.

It would have been obvious to one having an ordinary skill in the art at the time of the invention was made to modify the probe pin head with a semi-spherical shape for the purpose of contacting noble metal contact pads (column 9 lines 55 – 57).


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**As to claim 6**, Mathieu et al disclose (figs 23 – 26) the probe module of claim 1 wherein said circuit interconnect device (480, fig 23) comprises a plurality of conductive probe circuits (486) provided on said probe base (730A, 730B) in electrical contact with said plurality of probe pins (760A, 760B), respectively, and a flexible circuit board (480) provided in electrical contact with said plurality of conductive probe circuits (486).

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Nguyen at (571) 272- 1965. Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4900.

JN.  
August 4, 2004

  
**DAVID ZARNEKE**  
**PRIMARY EXAMINER**  
8/4/04